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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/501,891 | 11/22/2004 | Karel Dorey | 3198-102 | 8567 |

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| EXAMINER |
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MONSHIPOURI, MARYAM

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| ART UNIT | PAPER NUMBER |
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1656

| SHORTENED STATUTORY PERIOD OF RESPONSE | NOTIFICATION DATE | DELIVERY MODE |
|----------------------------------------|-------------------|---------------|
| 31 DAYS | 02/26/2007 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 31 DAYS from 02/26/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

| | | | |
|------------------------------|--------------------------------|------------------------------|--|
| Office Action Summary | Application No. 10/501,891 | Applicant(s) DOREY ET AL. | |
| | Examiner Maryam Monshipouri | Art Unit 1656 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-73 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-73 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

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Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1-4, 6, 11-14, 19-20, 22, 24-26, 33-34, 64, drawn to a human tyrosine kinase inhibitor consisting of cap region of type 1 a c-Abl protein, DNA encoding said inhibitor and a method of expressing said inhibitor.

Group 2, claim(s) 1-3, 5, 7, 11-14, 19-20, 22, 24-26, 33-34, 64, drawn to a human tyrosine kinase inhibitor consisting of cap region of type 1 b c-Abl protein, DNA encoding said inhibitor and a method of expressing said inhibitor .

Group 3, Claims 1-2, 8-9, 11-14, 19-20, 22, 24-26, 33-34, 64, drawn to a murine type I c-Abl tyrosine kinase inhibitor, DNA encoding said inhibitor and a method of expressing said inhibitor .

Group 4, Claims 1-2, 8, 10, 11-14, 19-20, 22, 24-26, 33-34, 64, drawn to a murine type IV c-Abl tyrosine kinase inhibitor, DNA encoding said inhibitor and a method of expressing said inhibitor .

Group 5, Claims 1, 11-14, 19-20, 56, 58-60, 62 , 65-67, and 68, drawn to a tyrosine kinase inhibitor which inhibits Src, DNA encoding it and a method of expressing said inhibitor.

Group 6: Claims 1, 11-14, 19-20, 56, 58-60, 62 , 65-67, and 68, drawn to a tyrosine kinase inhibitor which inhibits Fyn, DNA encoding it and a method of expressing said inhibitor.

Group 7: claims 15-18, drawn to a tyrosine kinase inhibitor that inhibits oncogenic form of Abl.

Group 8: Claims 15-16, drawn to a tyrosine kinase inhibitor that inhibits oncogenic form of Src.

Group 9: Claims 15-16, drawn to a tyrosine kinase inhibitor that inhibits oncogenic form of Fyn.

Group 10, claim 21, an antibody that binds said inhibitors.

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Group 11, claims 23, 33-34, 57-58, 61 and 65, drawn to an antisense that binds the DNA encoding said inhibitors and compositions and hosts comprising said antisense.

Group 12; claims 27-28, 31 and 33-34, drawn to methods of screening for compounds that inhibit c-Abl autoinhibition and said inhibitors.

Group 13, claims 29-20, 31, 33-34, drawn to methods of screening for compounds that restore c-Abl autoinhibition and said restoring agents.

Group 14, claim 35, drawn to a method of inhibiting c-Abl protein utilizing a tyrosine kinase inhibitor.

Group 15: claim 35, drawn to a method of manufacturing a medicament utilizing said tyrosine kinase inhibitor of fusion product thereof.

Group 16, claim 35, drawn to a method of manufacturing a medicament utilizing DNA encoding said inhibitor of fusion product thereof.

Group 17, claims 35, drawn to a method of manufacturing a medicament utilizing antisense which binds said DNA encoding said inhibitor and fusion product thereof.

Group 18, claim 35, drawn to a method of manufacturing a medicament utilizing activator compounds which inhibit c-Abl autoinhibition.

Group 19, claim 35, drawn to a method of manufacturing a medicament utilizing modulatory compounds which restore autoinhibition of c-Abl.

Group 20, claims 36-38, a method of treatment utilizing said tyrosine kinase inhibitor and fusion product thereof.

Group 21, claims 36-38, a method of treatment utilizing DNA encoding said tyrosine kinase inhibitor and fusion product thereof.

Group 22, claims 36-38, a method of treatment utilizing antisense which binds the DNA encoding said tyrosine kinase inhibitor and fusion product thereof.

Group 23, claims 36-38, a method of treatment utilizing utilizing activator compounds which inhibit c-Abl autoinhibition.

Group 24, claims 36-38, a method of treatment utilizing utilizing activator compounds which restores autoinhibition of c-Abl.

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Group 25, claim 39,69 a method of diagnosing associated with an aberrant activity of tyrosine kinase utilizing said tyrosine kinase inhibitor.

Group 26, claim 40,70, a method of diagnosing associated with an aberrant activity of tyrosine kinase utilizing DNA encoding said tyrosine kinase inhibitor.

Group 27, claim 41, a transgenic animal comprising DNA encoding said tyrosine kinase inhibitor.

Group 28, claim 42-44 and 45-47, 71-72, drawn to a c-Abl protein and a method of use and a method of making said protein

Group 29, claim 48-51, 73, drawn to DNA encoding said c-Abl protein and a method of use of said DNA.

Group 30, claims 52-54, drawn to a transgenic animal comprising DNA encoding said c-Abl protein and a method of use of said animal.

Group 31, claim 55, drawn to an antibody which binds the fusion protein comprising said tyrosine kinase inhibitor.

Group 32, claims , 60 and 63, drawn to antisense DNA which bind the DNA encoding said fusion protein, vectors and host cell comprising said antisense.

The inventions listed as Groups 1-32 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical features of Groups 1-13, 14, and 28-31 are: human type 1a c-Abl inhibitor, human type 1b c-Abl inhibitor, murine type 1 c-Abl inhibitor, murine type IV c Abl inhibitor, Src inhibitors, Fyn inhibitors, oncogenic Abl inhibitors, oncogenic Src inhibitors, oncogenic Fyn inhibitors, antibodies which bind said inhibitors, antisense which bind DNA encoding said inhibitors, inhibitors of c-Abl autoinhibition, modulators that restore c-Abl autoinhibition, inhibitors of c-Abl protein (or method of use thereof), transgenic animals comprising DNA encoding said inhibitors, cAbl protein, DNA encoding said protein, transgenic animals comprising DNA encoding said protein, antibodies which bind said protein and antisense which bind DNA encoding said protein, respectively ,which are each of unrelated chemical structure and function.

The methods of Groups 15, 20 and 25 share common technical feature with Group 14 invention but said inventions are not required to be rejoined under PCT Rule 13.1 because Group 14 already has method of use of tyrosine kinase inhibitors. Similarly methods of Groups 16, 21 and 26 share a special technical feature (namely DNA encoding tyrosine kinase inhibitors of method of use thereof) with Group I inventions But said inventions are not required to be rejoined under PCT Rule 13.1 because Group I invention already has a method of use of said DNA.

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Like wise Groups 11, 17, 22 share a special technical feature, namely antisense but said inventions are not required to be rejoined under PCT Rule 13.1 because Group 11 already has a method of use of antisense.

Groups 18, 23 share a special technical feature of inhibitors of c-Abl autoinhibition but under PCT Rule 13.1 they remain distinct because Group 18 already has a method of use of said autoinhibition inhibitors.

Groups 19, 25 share a special technical feature of modulators which restore c-Abl autoinhibition but under PCT Rule 13.1 they remain distinct because Group 19 already has a method of use of said modulators.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maryam Monshipouri whose telephone number is (571) 272-0932. The examiner can normally be reached on 7:00 a.m to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathleene Kerr Bragdon can be reached on (571) 272-0931. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M. Monshipouri
Maryam Monshipouri Ph.D.

Primary Examiner